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GRUMMAN plane news

New engines for Tomcat. *The U.S. Navy has recommended that General Electric be given the contract for engines needed to power 300 F-14 air superiority fighters. Pictured above is an F-14 Super Tomcat, which was retrofitted with GE engines in 1982 for tests.*

Leroy Grumman to join naval aviation greats in Hall of Honor

-pg. 3

An inside look at the ever-changing world of engineering

-pg. 6

Drugs in the workplace

One man's bout with drug abuse

-pg. 8

news briefs

X-29 update

As the X-29's flight test date draws near, Grummanites on that program are conducting a gamut of tests to ensure that the highly experimental plane flies right.

At Calverton Flight Test Operations during the week of January 30 — February 3, a TIFS (for *T*otal *I*n *F*light *S*imulator) aircraft was used to simulate the X-29's landing capabilities. The tests were done under the auspices of the Air Force Advanced Development Program Office (ADPO).

According to Bill Cutler, X-29 Flight Test manager, "the TIFS plane gave the Air Force and Grumman a good idea of how the X-29's flight control system would function in a real-world situation. Until now, it had only been tested on the ground-based simulators in Plant 14."

One of the TIFS plane's most distinguishing characteristics is its second cockpit, located forward and below the standard one.

"When the pilot sits in that second cockpit, he gets the same field of view as well as aircraft and control response he would get in a fighter, in this case, the X-29," Cutler explains.

The TIFS plane is actually a highly modified version of the military C-131 (the commercial Convair 580). It was revamped for test purposes by Arvin Calspan Corporation. Besides the two cockpits, modifications include side force surfaces projecting perpendicularly from each wing and computers that allow the X-29 flight-control characteristics to be simulated.

In flight, the pilot control commands are fed into the model computer, which calculates the required aircraft response. Those responses, along with TIFS motion-sensor signals, are used to generate feedforward and response-error signals, which drive the TIFS plane's six controllers. The result: a faithful rendition of the X-29's flight-control characteristics.

While it was at Calverton, the TIFS plane was flown 11 times by six pilots, among them Grummanites Chuck Sewell, Tom Gwynne, and Bud Iles.

Cutler says the tests utilizing TIFS were a "first" for Grumman. He explains that the TIFS plane can be reprogrammed and retrofitted to simulate virtually any aircraft.

"The tests demonstrated that the X-29 can be safely landed, and pointed out several minor problem areas requiring investigation. They'll be worked out on the Plant 14 simulator," Cutler concludes.

A lot bigger than X-29. *This TIFS (Total In Flight Simulator) aircraft was used to simulate the X-29's landing characteristics at Calverton recently.*

Summer jobs

Summer employment application forms for daughters and sons of Grummanites are available at all Employee Services (ES) offices and in the Plant 28 Employment office.

Those seeking summer employment must be active, full-time students who have completed at least one year of college by summer '84, are not graduating this June, and are continuing their education full-time in the fall toward a bachelor's degree.

This year's program will run a minimum of eight weeks and a maximum of 10 weeks between May 29 and August 31.

Summer positions are limited. Selections are based on the years of company service of the parent, student interest, and availability of job openings.

Deadline for submitting applications is Friday, April 6. If you have any questions or need more information about the program call Peter Portanova or Renee Cox on Ext. 0683.

High tech country

Milledgeville — home of Grumman Aerospace's Advanced Composites Facility, has been rated as the only Georgia city outside of Atlanta to have more than one of the state's top 10 high technology employers in a survey released by the Advanced Technology Development Center (ATDC) at Georgia Tech.

According to the survey, Baldwin County, in which Milledgeville is located, anchors one of the state's four main concentrations of high technology industries. The ATDC study results indicate that high technology industries are of "growing importance" in Georgia, employing some 60,000 workers and providing new tax revenues for state and local governments.

Listed as the eighth largest high technology employer in the state is Grumman, which began its Georgia operations in 1974. The Milledgeville plant currently employs some 732 people under the direction of Bill Zarkowsky, vice president and general manager.

In its 350,000-square-foot facility, Plant 66 builds several hundred thousand detail composite parts each year, including over 2,000 alone for each F-14 Tomcat. The facility specializes in such nonmetallic materials as boron, graphite, epoxy, and Kevlar parts marketed for both military and commercial aircraft.

Suggestion group

Effective February 1, the following Grummanites serve on the Corporate Suggestion Committee.

New appointees are: Ronald Heitzmann, Manufacturing and Materials Engineering; Francis Purstell, Corporate Procurement; Otto Sauberg, Bethpage Operations; and George Tomlinson Jr., Field Operations.

Continuing members are: Howard Ahders, Engineering; Lillian Baldissard, Calverton Operations; Andrew Gelderman, Quality and Safety Operations; John Klevanosky, Great River Operations; and William Rooney, Business Operations.

Committee chairman is Will Bischoff, vice president and chief engineer.

A hearty bunch

Plant 56's blood donors are a hearty and dedicated bunch. Despite the snowstorm on January 18, the Glen Arm blood drive went on.

In fact, it was the only blood drive in Baltimore City or County that did not cancel due to the snowstorm that hit the area. Plant 56's drive was the only source on that day in the entire Baltimore Metropolitan Area which was supplying whole blood.

And the Grumman blood drive was a huge success. According to Plant 56's blood drive coordinators Luella Beihl and Dick Holt, the Grumman facility had the largest number ever to sign up to donate.

calendar

Aikido Club: (Martial Arts) every Wed., 5 p.m., Recreation bldg. Beginners class. Guests welcome. M. Brooks, Ext. 115-6171/H. Brondo, Ext. 2719.

Alcoholics Anonymous: every Mon., 4:30 p.m., Plant 15, conference room C, closed meetings; Personnel Relations, Ext. 3521. Great River meetings: every Wed., 4-5 p.m. T. Conley Ext. 3521. Calverton: Chemical Dependency Discussion Group, every Mon., 4-5 p.m., Flt. Test Center, new conference meeting room, open meeting, Personnel, 369-6759/C. Robb, Ext. 117-7038.

Amateur Radio Club: every 3rd Wed. of the month. Plant 5 conference room BD-1, 5 p.m. B. Wengler, Ext. 4187.

Chess Club: every Fri., Recreation bldg., 5 to 11 p.m. Beginner to Expert, guests welcome. K. Marley, Ext. 4901/N. Corso, Ext. 9600.

Coin Club: (Calverton) every Fri., noon lunch, Plant 6, A-6 Action Center conference room. Grumman employees welcome. N. Evangelides, Ext. 117-7242.

Computer Club: 1st Mon. of every month, Recreation bldg., 7 p.m. Computer discussion and demonstration/beginner to advanced programming. Guests welcome. J. Hayne, Ext. 4945/P. Frumkin, Ext. 5134.

Dance Club: every Wed., 5-8 p.m., Recreation bldg. Guests welcome. S. Koppell, Ext. 115-3800.

Duplicate Bridge Club: every Thur., Recreation bldg., 6 p.m. Guests welcome. P. Gill, Ext. 115-8414.

Equestrian Club: every weeknight, Knoll Farm, Brentwood, 6 p.m. Grumman employees and immediate family only. J. Eisenhower, 115-6211.

Fencing Club: every Wed., 4:45-6:30 p.m., Recreation bldg. Free instructions, guests welcome. J. Hayne, Ext. 4945/ P. Chaldaris, Ext. 3486.

Folk Dancer's Club: (Calverton) every Thurs., 2nd floor, Plant 6, lunchtime, Grumman employees only. J. Hamelman, Ext. 117-6835.

(Continued on page 5)

Naval Aviation Hall of Honor to salute Leroy Grumman in May

Leroy Grumman will join the ranks of America's greats in naval aviation when he becomes a member of the Naval Aviation Hall of Honor on May 5.

Grumman, who died in October 1982, is one of four honorees who will be inducted into the Hall of Fame which is located at the U.S. Naval Aviation Museum in NAS Pensacola, Florida.

Grumman was one of six founders of the company that bears his name. While serving as its first president and its first chairman, Grumman guided the company from its inception in December 1929 at the beginning of the Great Depression to its development in the mid-Sixties of the Lunar Module for the nation's Apollo Program.

Born in 1895 in Huntington, Long Island, Grumman received a bachelor of science degree in mechanical engineering from Cornell University in 1916. The outbreak of World War I in 1917 prompted him to join the U.S. Navy as a machinist's mate 2nd class. Shortly afterwards, he applied for aviation duty.

In September 1918, Grumman graduated as a naval aviator (No. 1216), and was commissioned an ensign. He served as a flight instructor at Pensacola and then as project engineer and test pilot at the League Island Naval Yard near Philadelphia.

At League Island, he met two aviation pioneers, Albert and Grover Loening. It was for the Loening Aeronautical Engineering Corporation that Grumman went to work in 1920 after leaving the Navy, first as test pilot, then factory manager, and finally general manager. Grumman remained with the Loenings until 1929 when as a result of a series of business arrangements the factory was to close and relocate to Pennsylvania.

Grumman and five associates decided to stay on Long Island and go into business for themselves.

They rented a garage in Baldwin, Long Island, and with about $65,000 of their own money and $30,000 from the Loenings, opened for business on January 2, 1930, as the Grumman Aircraft Engineering Corporation.

Tremendous growth

Grumman served as president throughout his company's formative years when it grew from a repair shop for Loening amphibians to the premier builder of aircraft for the U.S. Navy. His numerous engineering innovations resulted in the first retractable landing gear on a production military aircraft and a unique way of folding the wings of carrier-based planes that permitted a 50 percent increase in the number of aircraft a carrier could accommodate.

He relinquished the presidency in 1946, but remained as chairman of the board. During the next 20 years, Grumman led the company into the jet age and then the space age. When he retired in 1966 as chairman, his company was in the midst of building LM, the ship that carried the astronauts to the moon. Grumman remained as a director until June 1972.

Many awards bestowed

Many awards have been bestowed upon Leroy Grumman during his long aviation career. For his achievements in naval aviation, the highest civilian award, the Presidential Medal for Merit, was bestowed upon him in March 1948 by Secretary of Defense James V. Forrestal. In that same year he was awarded the Daniel Guggenheim Medal for "pioneering in aeronautics." In May 1968, he became the first recipient of the National Academy of Science's Hunsacker Medal "for his contributions to aeronautical engineering." He is enshrined in the Long Island Hall of Fame and the Aviation Hall of Fame (in Dayton, Ohio).

In 1949, he was awarded an honorary Doctor of Engineering degree from the Polytechnic Institute of Brooklyn and in 1961 an honorary Doctor of Laws degree from Adelphi University.

Naval aviation giant. *One of six founders of the company that bears his name, Leroy Grumman accepted the Presidential Medal of Merit in 1948 from Secretary of Defense James Forrestal for outstanding service during WWII (above L). He was naval aviator no. 1216 (above R), before starting the company in 1929 as a repair shop for Loening amphibians (below at R).*

Distinguished list of honorees

In March 1979, the Chief of Naval Operations established the U.S. Naval Aviation Hall of Honor to recognize "those individuals who by their actions or achievements have made outstanding contributions to naval aviation." The Hall of Honor is an integral part of the Naval Aviation Museum at Pensacola, Florida.

Among those already enshrined in the Hall of Honor are: Rear Adm. Evelyn Byrd Jr., Lt. Col. Alfred Cunningham (USMC), Glenn Curtiss, Cdr. Theodore Ellyson, Adm. John Towers, Adm. Marc Mitscher, Glenn Martin, and Cdr. Elmer Stone (USCG).

Those who will be honored this coming May along with Leroy Grumman are:

Vice Adm. James Flatley Jr. who distinguished himself while participating in practically every major engagement of World War II in the Pacific as combat pilot and as a member of a combat staff.

Adm. John Thach who as commanding officer of VF-3 at the beginning of WWII developed the "Thach Weave" which soon became the Navy's basic air-to-air tactic.

Capt. Kenneth Whiting who served as first commanding officer and first executive officer of the *U.S.S. Langley*, the Navy's first aircraft carrier.

retirees

On behalf of our fellow workers, *Plane News* salutes the following men and women for their contributions to the company and wishes them well in their retirement. Those who have recently retired are:

Richard Aiello (35), John E. Bazazian (3), Paul T. Bosch (2), Reed Bradley (35), Dorothy A. Buck (30), Claire M. Bush (106), Jack B. Cabre (77), Charles J. Cafaro (6), Salvatore L. Camerlengo (1), Leroy Carter (2), Joseph Cirnigliaro (40), Robert Cochrane (6), Alice E. Corrigan (35), Robert D'Angio (1), Wilson G. Daughtry (2), George Eisenhauer (1), Andrew Farrell (3), Philip Ferrara (25), Nicholas S. Fico (7), Charles J. Finlay (39), John Flynn (2), Edward T. Gibbons (6), Arthur R. Ginnever (3), Andrew Goshefski (2), Marjorie R. Goshefski (5), Joseph Greene (9), Charlie C. Harrison (66), William E. Hinsley (77), Joseph Hoffman (4), Martin W. Larcombe (6), Joseph Laveglia, (14), Resi Leonard (3), William J. Maffia (2), Henry Mangels (40), Carlos Martinez (06), Eric R. Meurer (3), Charles J. Murphy (2), Walter G. Nikles (25), Harriet Ohland (77), John V. Parenti, (GAI), Orlando Pennino (2), Helen Rau (43), Patsy Ruffini Jr. (6), Anna Russo (40), Eleanore Scott (2), Leo Siemion (2), Joseph M. Sodal (6), Alfred H. Spencer (3), Dolores Stierle (28), William L. Stone (17), Sidney Strausberg (2), Robert C. Thacker (77), Paul E. Tressa (25), Harold R. Wellander (1), Michael Wolski (28), Chester V. Zelenski (6), Eugene Hudson (6), Albert H. Edwards (56), James J. Casey Jr. (111), Victor P. Ruffini (6), William D. Spiegel (9), James W. Kearns (2), Harold Durfee (5).

Reimbursement program takes bite out of rising tuition bills

• Dee Vogelsberg interrupted her college studies some years ago to get married and raise a family. Now she's back in the classroom.

• Scott Betchley sees getting a degree in Electrical Engineering as a career necessity.

• Fran Overcash hopes a college degree will provide her with the chance to move into the administrative and managerial world.

• And for Mike Collins, returning to school for his B.S. was just something he'd always wanted to do, though he also hopes to gain career-wise from it.

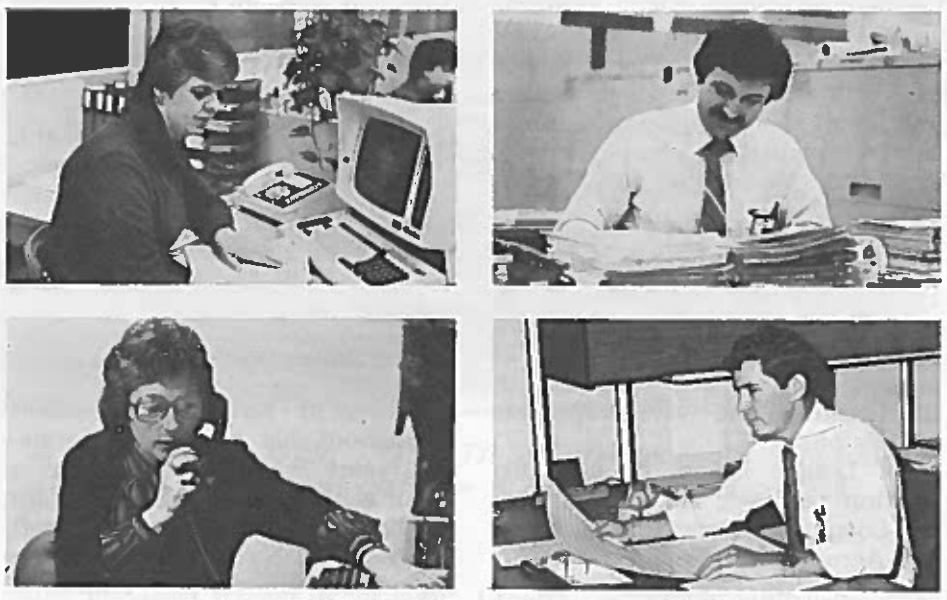
Vogelsberg, Betchley, Overcash, and Collins are Grummanites who have taken advantage of the company's Tuition Reimbursement program. Simply put, the program enables employees to attend college and get reimbursed for their tuition outlay — provided, of course, they achieve acceptable grades and are enrolled in approved courses.

Among the four, Collins has completed his studies — the resource planner at Stuart recently graduated first in his class from Florida Institute of Technology's Jensen Beach campus. The others are among the approximately 2,000 people currently enrolled in the Tuition Reimbursement program. It is open to people from all Grumman subsidiaries except Grumman Allied, Grumman Technical Services, Inc., and Grumman St. Augustine Corporation, which operate their own programs. And, according to Lorraine Alfino, the program's administrator, it's not just limited to those pursuing specific degrees — even though most of its participants are.

"We reimburse on a course-by-course basis," Alfino points out. "We find that if you limit the program to people going for degrees, you won't be helping the others, who may just be taking a course or two to help them at their jobs."

The program gives special rewards to those with high marks: a 100 percent refund for getting an A. The person who earns a B gets 85 percent back, while a C nets the individual 75 percent. Below that, no refund is provided.

Vogelsberg, an analyst in Plant 30 Accounts Payable, is now about halfway through the requirements for a bachelor's, counting her credits from before she was married. Since she's been in the program, she's taken five courses. Right now, she is attending Adelphi University's ABLE program, which provides a certain number of credits for life experience.



Back to school. *(Clockwise from top L) Dee Vogelsburg, Scott Betchley, Mike Collins, and Fran Overcash.*

Vogelsberg, who has been at Grumman for three and a half years, says although she does expect her degree to help work-wise, her main motivation for going to school is self-enrichment.

"It's something that I started that I wanted to finish," she says. "And I wouldn't have been able to do it without tuition reimbursement — I have three children attending college right now, and the expense would have made it impossible."

Vogelsberg estimates that she'll finish up in 1986. Her degree: business/communications. She has made straight-As so far, so she's gotten all of her money back. This semester she's enrolled in a marketing course.

Second degree

Betchley's story is a bit different than the rest — when he started his college courses, he already had a degree — in communications. Betchley, an engineer on the E-2 and C-2 programs in plant 25, explains that he originally took engineering courses in college a decade ago, but he switched majors midstream. After graduating, he found few job opportunities in T.V. and radio, so he began at Grumman as an engineering aide. In January, 1975, he went back to school — this time, to the Polytechnic Institute of New York for a B.S. in Electrical Engineering. He plans to finish this summer.

"PINY's a private school, and tuition has gone up since I've been there, from $70 to $220 per credit," he says. "I would have gone to school anyway, but I probably wouldn't be finishing right now."

Though he has reached the level of engineer without it, Betchley reasons that he'd definitely need the B.S.E.E. to become a senior engineer. He has no immediate plans of continuing beyond that other than getting his professional engineer's license.

Overcash has logged a lot of time as a Grumman secretary — 25 years to be exact. She's now executive secretary to Ed Waishe, director of Market Planning and Research. In 1981, she enrolled in an associate's degree program in Business at SUNY-Farmingdale. From Farmingdale, she'll go on for her Bachelor's at another school, finishing by 1986.

Overcash characterizes returning to school as a big step, "so, I started out by taking only one course a semester. Last semester I started taking two. It takes up three nights a week."

Overcash also takes career workshops on secretarial skills and women in business. She says she would have gone back to school with or without the program. Also, as she's gone on, she's come to the realization that she wants to move into a non-secretarial job.

"I didn't start out with this attitude," she recalls. "There was a time when I enjoyed — and I still do! — being a secretary, but I've just reached the point now where I've got to move on."

High honors

Collins performed the double feat of being at the top of his class and taking 18 credit hours during his last quarter — all the while working at Grumman full-time.

"In order to graduate in December, I had to take 18 hours for the quarter," he says. "It was kind of a shock ending up with the highest G.P.A. in the class — four As and a B. I was never home; it was crazy! But my family and I hung in there."

Collins started at FIT in January of 1982 — he already held an associate's from a community college. He was able to recoup about 90 percent of his tuition — which amounted to a great deal, since Florida Institute of Technology is a private school. His major was business and computer technology, in a program tailored to the needs of business people.

"It's a really good deal," he attests. "It really helps out, especially if you're going to a private college. But I would have gone on without the program . . . It was always something I wanted to do."

Desk bonanza

Grumman Property Disposition has plenty of used metal desks for sale to Grummanites.

The desks are double pedestal in grey and tan. Each is $30 plus tax.

Interested employees should obtain an Employee Sales Form (GAC No. 5531) at their Employee Services (ES) office, fill it out, and mail it to Property Disposition, A04-17.

Do not call. You will be notified by phone for an appointment to inspect the desk. You must pay by check or money order and must remove the merchandise at the time of sale. Property Disposition will not hold any merchandise. Photos and more information about the desks are available in all ES offices.

GRUMMAN plane news

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Editor
Kathleen Housley Ext. 3293

Associate Editors
Joe Pititto Ext. 5119
Robert Sample Ext. 5118

Editorial Assistant
Bernadette Gately Ext. 8999
Mail stop C14-05

Building boom. *Construction of two major new buildings at Grumman's Bethpage Location continues to roll right along. The new administration building on Stewart Ave. is beginning to take shape (at L), as is the Plant 14 Engineering Development Center (above) which will house E-2C development work as well as electronic systems work now going on in Plant 14. (Photos by Jim Wagner)*

calendar

Klown Klub: every second Tuesday of each month, Recreation bldg., 4:15 p.m. Guests welcome. M. Deyns, Ext. 7564.

Karate Club: every Tues. and Thurs., Recreation bldg., beginners 4:30 to 5:30, advanced 5:30 to 7:00 p.m., black belt instructors, physical and mental development. New students at the beginning of each month. Guests welcome. T. Ortiz, Ext. 8497.

Model Railroad Society: every Wed., 7 p.m., Recreation bldg., Regular meeting. Guests welcome. R. Muntz, Ext. 6865.

Magic Club: last Wed., of every month, The Magic Shop, Mid-Island Plaza, Hicksville, 4:45 p.m. Guests welcome. G. Albright, Ext. 5782.

Retiree Club: Wed., Feb. 29, Recreation bldg., 1 p.m. Business meeting, guest speaker will be Chuck Sewell. Guests welcome. Ellen Drasser, (516) 575-2133.

Roller Skating Club: every Thurs., Levittown Skating Rink, lessons at 6:30 to 7:30 p.m. Guests welcome. H. Denen, Ext. 2291.

Society of Logistics Engineers: Tues., Feb. 28, 5:30 p.m. Antun's Hicksville. Dinner meeting, guest speaker will be Mr. Louis I. Geneve, president of Logistics Education Fund. Guests welcome. S. Lane, Ext. 7527.

Stamp Club: First three Wed. of every month, 5-6 p.m., Plant 35 cafeteria, trading sessions and discussions. S. Hoops, Ext. 3926.

Table Tennis: every Thurs., Plant 24, 5 p.m. and every Fri., Recreation bldg., 5 p.m., also every lunchtime. Beginners and guests welcome. B. Fabricant, Ext. 9307.

Tap Dancing Club: every Mon., Recreation bldg., beginners 4:30-5:30 p.m., Intermediate 5:30-6:30 p.m. Guests welcome. P. Tropea, Ext. 2260.

Toastmaster Club: every Wed., Plant 30, first floor conference room, pole E3, 5-7 p.m. Grumman employees only. A. King, Ext. 6779.

obituaries

EDWARD C. MAYER of Flight Avionics, Plant 8, died February 7 at the age of 53. He had been with the company since 1955 and resided at Peconic Bay Blvd., Jamesport.

Unit values

The following are unit values for the Grumman Employee Investment Plan as of December 31, 1983. These unit values are compared to the preceding month's values (November 1983).

Equity Fund
2.502 down from 2.520
Fixed Income Fund
3.538 down from 3.542
Guaranteed Income Fund
1.739 up from 1.722
Company Stock Fund
$24.25 down from $31.00

EIP annual meeting slated for March 29

Get your financial questions ready. The annual meeting of the Grumman Employee Investment Plan will take place Thursday, March 29.

All plan members are invited to attend the meeting, which starts at 5 p.m. in the Plant 28A auditorium.

Representatives of the fund managers of equity, fixed income, and guaranteed income funds will be present as well as representatives of the bank recordkeeper.

In addition to hearing reports on the performance of the plan's funds over the past year and projections of their future performances, you'll have the opportunity to ask questions of the plan's managers.

In order that a maximum number of inquiries can be answered, the EIP office suggests that you fill out the form printed on this page if there are certain topics you would like discussed. These suggestions are important; the evening's agenda is usually prepared around them. Mail your inquiries to the Employee Investment Plan, A03-28.

Those of you who will not be able to attend the annual meeting will be able to read a summary of it in a future issue of *Plane News*.

Investment plan inquiry

I'd like to have the following topic discussed:.....

.....

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Mail to: EIP, A03-28

Engineers Week, Feb. 19-25

The changing world of the Grumm

en·gi·neer/,en-jə'-ni(ə)r/n: a person who is trained in or follows as a profession a branch of engineering . . . which is the application of science and mathematics by which the properties of matter and sources of energy in nature are made useful to man in structures, machines, products, systems and processes.

They work in the worlds of electronics, structures, mechanics, software, avionics, energy, power plant design, flight test, and numerous other disciplines. They are the genesis of Grumman Aerospace products since their high-tech expertise goes into everything the company makes.

This diverse group is Grumman's 3,800-strong force of engineers.

Recently, a Federal official was quoted in the media as saying it was a national disgrace that the typical twelfth grader has very little knowledge of what an engineer actually *does*. So, February 19-25 has been proclaimed Engineers Week by a coalition of national engineering societies, and much of what they hope to accomplish relates to raising the public awareness about engineering.

One Grumman effort during this week was to take out a booth at the Engineers Week fair, held at Sunrise Mall in Massapequa. Part of the effort was to recruit potential employees. Will Bischoff, vice president and chief engineer, contends the company now devotes more time

'It doesn't matter whether they're in electronics, design, or whatever. . . new engineers all need to have computer smarts.'

and resources to this area than at any time since the Lunar Module program. His department plans to hire 300 new grads during 1984.

Is the department meeting that challenge? Bischoff responds that it is, and that 50 have already been hired since January 1. A major challenge, he says, is finding experienced systems design/analysis people.

"Specialists in this area are more apt to be molded by employment experience and innate ability than by particular curricula," he says, "and are harder to find."

He continues: "As far as the basic training goes, the schools are producing some very high quality people who have done outstanding work . . . but they've all got to come to us today with 'computer smarts.' It doesn't matter whether they're in electronics, computers, design, analysis, or whatever — we've reached the point where everything an engineer does involves computerization. The schools have, in my opinion, done a good job."

Bischoff also notes that the aerospace industry's become much more electronics-intensive, opening up many job opportunities.

Grumman is holding its own with the state-of-the-art in engineering automation, via innovations such as GEMS (Grumman Engineering and Manufacturing System), now utilized throughout the company. CATIA, a new system developed by Daussault (a French firm) with three-dimensional capabilities, is just now being incorporated into the departmental infrastructure.

"We're in tough competition for the products we develop, and the processes and procedures as well," he says. "This competition requires us to continuously improve and stay ahead of the game."

As a tribute to such a large segment of the Grumman work force, *Plane News* interviewed, at random, four engineers who more or less represent a cross-section of talent. The following are their stories.

Designs of the future

Don Colquhoun is a preliminary design engineer in Plant 5 — Advanced Aircraft Systems. As such, he's now working on the ATF — Advanced Tactical Fighter, a highly secret aircraft that, if bought by the Defense Department, would go into production sometime in the 1990s. He says his job has changed substantially since he started working for Grumman in 1955, and since he first was assigned permanently to preliminary design in 1965.

"The way it used to be, we had a brainstorming session among design, aerodynamics, propulsion, and weights engineers," he says. "We had to put together the plane's parametrics — based on customer statement-of-work requirements — of how big the new aircraft should be, what it's technical characteristics would be. The preliminary designer would work from the parametrics and produce a configuration drawing. After this stage, many other engineers would become involved — refining the design repeatedly until it got presented to the customer."

Those steps are basically the same, he says; it just goes faster using CADAM (Computer-Aided Design and Manufacturing). CADAM is actually a Lockheed-developed program running on GEMS. The preliminary design people, in turn, modified it to suit their requirements, and dubbed the result "Leonardo." Now, a Leonardo II is in the works, which will provide three-D capabilities and color.

Colquhoun says the parametrics used to take days or even weeks to produce. Now, it's done in a matter of hours — "and with much greater accuracy," he attests.

Does he miss the camaraderie of those intense brainstorming sessions?

"Yeah," he sighs. "In some ways, there was closer interaction . . . but I wouldn't go back to the old methods. The end product is 100 percent better. When we started using computers, our biggest fear was not having the flexibility we had with paper. In the early stages, that was sometimes true. But it's been improved to the point where now, anything I did before on paper, I can do on a screen."

Colquhoun sees a bright future for preliminary design at Grumman, adding the Air Force has been impressed with their work on the ATF.

Less drudgery

Vincent Padden, a project engineer on the Malaysian A-4/TA-4 conversion program in Plant 5, echoes Colquhoun's sentiments about automation.

"I have a middle name — it's Thomas. You've got to prove to me something works," he says. But in his words, automation has "taken the drudgery out of engineering."

"This frees the engineer to do more creative work — which is the way it should be," he proclaims.

Padden is new at being a project engineer, having been promoted a year ago. He's been at Grumman 18 years, most of which he spent as a structural engineer, working on the gamut of Grumman aircraft. He finds project engineering stimulating in that he comes in contact with people from a variety of disciplines.

"Number one, the job was a promotion," he says. "But it also gives me control over a wide range of engineering aspects of the project."

Padden sees the engineering profession becoming increasingly specialty-oriented.

"You used to be able to take a structural person and put him in almost any design area," he recalls. "Now, you don't find as many people with as varied backgrounds as years ago."

But he says there's a lot the company has to offer young recruits.

"It's a great place to work," he states. "We feel our engineers are among the best, if not *the* best, in the industry.

"And in aerospace engineering, the opportunities are better than they've ever been," he adds. "More specialties means more opportunities. Of course, there are also more contracts right now — that helps."

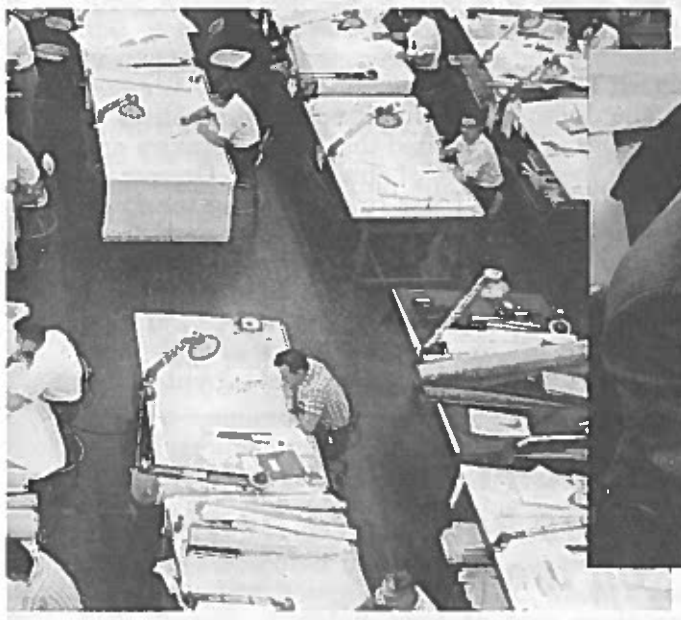
Booming field

Cecelia Jankowski is one of those bright young people the company aims to attract through its recruitment ads. An electrical engineer, Jankowski says she's "heading toward" digital-signal processing as a specialty and also has a patent pending in this area. Right now, she's in the Masters Fellowship program, so she changes assignments every few months. She started in computer design, moved on to JSTARS and now works on GEMS.

Jankowski has been heavily involved in the burgeoning field of computer-aided engineering (CAE), taking part in an evaluation of CAE workstations for electrical-design personnel.

"The evaluation involved looking at the technology available, establishing benchmarks

an engineer



High tech. *Ralph Rosenfeld and Vin Padden (upper L) review a schematic of the TA-4 cockpits. Russ Hagerman (upper R) contends mechanical engineering is much more complex today. (Lower R) Bill Geisler, Dave Reichel, and Don Colquhoun "brainstorm" on a GEMS scope. Cecelia Jankowski (lower L) completes an integrated circuit design. On extreme left is a photo of what "engineering workstations" used to look like in the earlier days of the company. (Photos by Jim Prestinari)*

for what we wanted it to accomplish, as well as a 'wish list' of special features," she says. Those personnel have now begun using this system. She says she would also like to see CAE utilized throughout avionics.

"CAE and the electrical-design areas will enable us to get more business," she comments. "You can't do the job with paper and pencil anymore. It's a really interesting field. CAE workstations didn't exist when I started in 1981. They were only introduced by the manufacturers in mid-1982, and Grumman bought its first in 1983.

"We've made an impact on the field of CAE," she continues. "That's not just P.R. . . . it gives you a good feeling to go to a technical conference and read the papers, or pick up a technical publication, and realize people are just getting into areas that you've been working on all along. You don't realize it, but by just doing your job, you've helped Grumman become a leader in the technology."

Asked about what her experiences have been to be among the small, but growing, work force of women engineers at Grumman, Jankowski comments: "I don't feel it's hindered me at all. It's true, there aren't as many women in electrical engineering as in other areas — such as software. But you can see it changing, gradually. You see it every year as the new graduates come on board."

Lifelong ambition

"I'm one of those people who as far back as I can remember, wanted to be an engineer," contends Russ Hagerman, section head in Mechanical Design, Plant 35. "I did vacillate between electrical and mechanical. But there was never any doubt in my mind about what I wanted to do for a living.

"I've always had an interest in . . . objects," he continues. "Fixing things . . . building things."

Hagerman, a Grummanite for 28 years, agrees with the others that there have been many changes in the engineering profession. "Mechanical engineering has gotten much more complex than it was 20 years ago," he says. "The biggest changes in the way we do the job have been technical and administrative. Administratively, programs are now scattered all over the area. I have people working in my group in Plants 1, 25, 5, and Melville. It means you do the job a lot differently than 25 years ago, when you looked out your door and saw 120 or 130 people working together. Obviously, it's a result of the growth of the company."

The major technical change has been the advent of computerized tools. "And I'm sure everybody else has told you the same thing," he remarks. "You really have to have been an engineer in the old days to appreciate what computers can do."

There are other changes, too. Hagerman points out that a lot of the manufacturing materials taken for granted today weren't available years ago — among them teflon, certain plastics, and composites. Also, new machinery in the shop has given engineers more design capabilities.

Hagerman says even though keeping his group adequately staffed poses a major challenge, in the face of increasing numbers of retirements, he's always been able to find an able force of recruits.

"I'm lucky, I suppose," he muses. "I seem to find people who really obtain a tremendous amount of satisfaction from designing — which is what it's all about, isn't it?"

Drugs in the workplace

'I was going around in a constant fog'

This is the second article in the "Drugs in the Workplace" series. The following is one Grummanite's story about his bout with prescription drug abuse — and how he came to grips with the problem.

My problem began in the second half of last year when I was in a fairly serious car accident on my way to work one morning. At the time, I didn't feel any pain so I didn't think I was seriously injured, other than a small cut on my arm. It wasn't until I got to work and one of my co-workers noticed that I was acting pretty strange that I realized anything was wrong. He called over my immediate supervisor and the two of them called the Employee Services people to come and take me to the hospital. When the hospital checked me over, they found out that I had suffered a cervical sprain in my neck and a similar sprain in my lower back. They fitted me with a brace and gave me some muscle relaxants and released me.

After that I went to my family physician and he prescribed something called methalcarbonol — which is a skeletal muscle relaxant — but doesn't do anything whatsoever for the

'In addition to the pain, I was in a very depressed state of mind'

pain. And I was in excruciating pain by this time.

My doctor, though, didn't believe in prescribing painkillers. So, instead of taking any drugs I was sent to a chiropractor who told me that my spine was indeed out of line and that I would need extensive physical therapy — during which time I would still be in pain.

I then went to yet another doctor, because I was still in an enormous amount of pain. He prescribed something called "Darvacet" which is a strong form of the painkiller darvon. These were not sleeping pills, they were pain pills — relatively mild, however, and I was able to function on them I would say about 80 to 85 percent of my usual ability.

But the pain kept getting more severe, so a friend of mine recommended a doctor who he said would give me what I wanted. I asked him just what it was that I wanted and he pulled out this PDR — a physician's desk reference textbook for pharmaceutical drugs. He pointed out several choices which the book indicated would alleviate my pain.

You have to understand that in addition to the pain, I was also in a very depressed state of mind. My work attendance immediately following the accident was very poor. My car was in terrible shape. There were several days where I did manage to come in to work, but I had to leave because I couldn't concentrate due to the pain and depression.

So I went to this doctor my friend had recommended and the doctor prescribed some very, very strong medication for me. This included 200 milligram Tylenol for sleeping as well as 10 milligram valiums — four or five a day, which is a very strong dosage.

By this time, about a month after the accident, I was going around in a constant fog. My condition was noticed by my boss. The drugs were affecting my performance. I was taking a lot of personal time off. The people around me noticed the change in my personality. My family and my fiancee began to worry.

It came to a head here at work one day when I called in sick with a sore throat as an excuse. My supervisor, who I talked to that morning, noticed that my voice and speech sounded strange. In fact, I was barely coherent at the

(Photo by Bob Settles)

time. So he called back a few hours later to ask how my throat was. I answered that my throat was fine and wondered why he was asking me. I didn't even remember the excuse I had given him a few hours earlier.

It was at that time he realized that I was seriously into drugs. He called my family and they attempted to call me and talk to me, but I was totally incoherent and uncooperative. They came over to my apartment and observed me for two or three hours to see if I should be

'I was totally incoherent and uncooperative'

taken to the hospital to have my stomach pumped but decided eventually just to take me to their house.

After that episode, I went back to the doctor who had been prescribing all these drugs for me. I do want to say that he didn't prescribe these drugs for me in any deliberately dishonest or irresponsible manner. He was just following standard procedure as an established physician in the community who in his career had always dispensed drugs to solve medical problems. Essentially, he was just doing what I wanted him to do — giving me the drugs that I had convinced myself I needed.

The doctor and I discussed the alternatives to the drugs and he advised that I should take a one month medical leave of absence from Grumman. During this time, I was to stop taking the drugs completely. I had a great deal of support from my father and my fiancee. However, I had made such a stockpile of drugs by this time that I decided that — well, what the hell . . . during my month off from work I might as well finish off what I had and get the drug taking out of my

'I found myself relying more and more heavily on the pills'

system. So that's what I did. I proceeded to take the rest of the pills I had stockpiled. I was taking so many different pills: Pentobarbital which is Nembutal sodium, Placidil, valium, Darvacet, Tylenol with codeine, phenefoin with codeine — all very powerful substances. And I was taking them in very large dosages too.

While I didn't feel then that I was physically or even psychologically addicted, I found myself relying more and more heavily on the pills as the cliche crutch. When I came back to work after the month off, things were kind of rough for me. I'd been out for a month and there was the backlog of work to contend with as well as the whole idea of concentrating on my job again.

My immediate supervisor was really understanding and helpful. He was and still is very compassionate towards me. Of course, I can't say the same for everyone I worked with. My behavior and personality changes tied to the drug abuse had not helped my relationship with my fellow workers at all. In addition, I found that I had alienated many of my closest friends. I had even driven away my fiancee who returned the ring I had given her and said she didn't want anything to do with me anymore — that she didn't recognize me anymore.

This just served to drive me further into depression and to the drugs for relief and escape. Finally, my father brought me in to the Personnel Relations Office here at Grumman. I came to the meeting drugged up with a real chip on my shoulder. The Personnel Relations people and my father used a scare tactic on me — what they called a "confrontational approach" — in order to open my eyes to the trouble I was in. They told me straight out that if I didn't straighten up I would find myself without a job. I was in obvious job jeopardy because of my lack of performance. Even more importantly, they pointed out that I stood a real chance of not only losing my job — a job I like very much and need — but also everything else that mattered to me, including my family, my friends and my fiancee.

The Personnel Relations people recommended that I go home and pack a bag and head to a local treatment center for professional help. So I went home and thought it over and decided that I didn't want to be institutionalized. I told Personnel Relations that I wouldn't do it and

that I'd rather quit the company first. And they said to me "How is it going to be any different anyplace else?" For some reason that got through to me. It really hit home. I asked if there was any alternative to enrolling in a clinic and Personnel Relations arranged an appointment with an area resource treatment facility for outpatient therapy.

At the first appointment I was still doped up and the therapist could tell. He asked me what drug I was on and I told him I had taken some valium but that my parents had taken most of the pills away from me. He recommended that they give the pills back to me since it was obvious that I could get my hands on replacements if I wanted to.

At that point, it was not uncommon for me to take 10 or 12 five-milligram valiums and then drink a couple of beers every night. I was seeking refuge not only from the constant pain, but from the anxieties of the legal complications arising from the accident, trouble I was having at work, problems with my fiancee and family. The drugs obscured the problems for me but at the same time compounded them. When I was high, though, I didn't have to face anything. I needed the drugs as an escape . . . rather than confronting the problems on the job . . . rather than confronting the problems from the accident . . . rather than confronting my fiancee — it was easier for me to just go out and get messed up.

The therapist got me to realize that all these problems that seemed to be piling up against me were not some sort of conspiracy. That the drugs were the only real reason I couldn't deal with these things. He gave me some tests that determined I was wasting away my mind and he pointed out very clearly that I had to shake the drugs myself.

He gave me back the vial of valium and asked me to carry the pills at all times but to try to take them only when I really needed them — only for the physical pain. The next time I went to see him he asked to see the bottle. When he counted the pills and saw that I hadn't taken any he asked me why. So I told him that I hadn't felt the need for any. The big question, he said, was how I determined the difference between needing the drug and wanting it. I told him that before I didn't bother to differentiate between needing and wanting. The drugs were available and I had fallen into a pattern of taking them. I liked the high they gave me and I didn't have any reason not to take them — which is the kind of reverse logic I had been fooling myself with.

'A lot of other places would have let me drift away into oblivion'

The therapist really helped me realize just how much harm the drugs were doing to my life. He opened my eyes to the fact that it was the drugs that were the biggest problem, making everything else in my life difficult. Once I realized that, I told him that I didn't think I would ever need the pills again and that he could keep the bottle. But he said I should keep them around as a reminder. You know, I still have that same bottle of valium — and it still has the same number of pills in it as that day in the therapist's office.

I still haven't found anything for the pain. But now my fiancee and I are back together and closer than ever. I'm back in control of my life, and that's what really matters. And to tell you the truth, it wasn't easy and I couldn't have done it without the support I received from Grumman. A lot of other places would have let me drift away into oblivion and said "good riddance." Here I got the help I needed, and that's important.

Help is available

Grumman Personnel Relations is available to help Grummanites — as well as their family members — with chemical dependency problems.

This assistance is extended not only on-the-job but at home. Substance abuse ranges from alcohol to prescription and illicit drugs.

In any case, Grummanites can get confidential help in dealing with a dependence problem by dialing HELP (Ext. 3521).

In the case of illicit drug abuse, it has been noted that people are especially reluctant to seek help because of the illegal nature of the problem. Personnel Relations stresses that it is not in the business of Law enforcement but rather in the personnel assistance business. All requests for help are delt with on a strictly confidential and individual basis.

people

Go, Jeff, go

Margaret Jost says her whole family is pushing for Jeff, her brother and the driver of the U.S.A. number-one bobsled in the four-man bobsled competition at this year's Winter Olympic Games in Sarajevo, Yugoslavia.

Jeff Jost is a state trooper in Malone, New York (near the Lake Placid — Canada border) who took a leave of absence from his job to compete in this year's Olympics after getting into the difficult and dangerous sport of bobsledding quite by accident.

"My brother just happened to bump into one of the U.S. bobsled team members in a bar in Lake Placid in 1978 and got talked into trying the sport," says Margaret. "Jeff is a very athletic guy, so he gave it a shot. He said the first time scared him so bad that he swore he'd never do it again. But they talked him into it the very next day because they needed him for a competition.

"He eventually wound up as the brake-man on the 1980 Olympic team. After the Lake Placid Olympics, he decided he would like to drive and now he's the driver for the U.S.A. number-one bobsled," she adds.

Because the East German and Russian bobsled teams have a considerable edge in the technology of sled design, Jeff's American team will be happy to place in the top six finishers at the Sarajevo games.

Margaret, a secretary in the Grumman Corporation corporate tax office, says an uncle and a brother-in-law also work for Grumman and along with the rest of the Jost family, "We will all be glued to the TV set when Jeff races. The family is very proud of him and he's worked very hard to get this far. I hope he does well." As do we all.

A civic duty

Caren Sanders has been selected by Milledgeville Operations to represent Grumman in the 1984 Milledgeville-Baldwin County (Ga.) Chamber of Commerce "Tomorrow's Leaders" program.

The three-month program is given to 15 people each year from both the private and public sectors. Those selected are chosen for demonstrating a concern for community affairs. Participants study civic operations, local economic and community development, nearby state agencies and institutions, local education, and the duties of local elected officials.

Caren works in the Finance Department at Plant 66. Earl Seagle of Quality Control was last year's participant in the program.

Outstanding. *Accepting the United Way Gold Award for outstanding participation among Plant 71-Irvine Operations employees and the Coordinator Award are Kirk Keer (L), Plant 71 general manager, and Stephanie Landau (R), its United Way coordinator. The awards were presented by Mike Roseen (C), Orange County (Calif.) United Way Loaned Executive.*

J.B. Look | J.W. Walsh | R.E. Boyland | E.M. Finkelman | P. Oram | J.B. Lemyre | V. Gonzalez | B.D. Mulnard | F.T. Lyons

R.P. Wellenberger | C. Kanige | P.G. Schnabel | G.A. Graefe | J. Stevenson | J.W. Galaway | A.R. Nordstrom | H. Hessel | E.J. Gray

Happy 25th service anniversary!

W.T. Dwyer | P.G. Belles | D.G. Hansen | A.E. Witzig | L.J. Rogers | W.W. Bienner | A. McAslan | I. Palmer | S.G. Spero

R.J. Shaw | A. Stewart | S. Piazzola | R.A. Stewart | J.C. McArdle | E. Stern

D.S. Komives | W.F. Hilbert | R.J. Munz | M. Proise | G.A. Zetkov | R. Botwin | B.E. Winkler | V. Jordan | V.A. Padovano

V.S. Falcone | D.F. Flader | J.M. LeStrange | D.R. Sohl | F.E. Butler | G.F. Foray | J. Gillman Jr. | W.M. Mang | R.G. Makowski

service milestones

40

Peter Wladyka, Tanks & Ducts (2)
John J. Dalessio, Assy. Methods (2)
Joseph Domanski, Spotweld (3)
Gordon R. Emmons, M/Del. Shop (5)

35

William R. Klatt, ILS Tech. Dir. (1)
Rocco Truglia, Small Parts Fab. (2)
Herman P. Michaels, Tanks & Ducts (2)
Andrew A. Goshefski, Ctr. Sect. — Sub. Assy. (2)
Charles J. Murphy, Prod. Cont. Maj. Assy. (2)
Michael Stanco Jr., Plant Serv. (2)
Paul A. Riedener, Cap. Mon. & Cont. (2)
Harold Martinsen, Tool Fab. Mgmt./Staff (2)
David D. Boyce, Honeycomb Prep. (3)
Robert C. Noe, Mat'l. Rev. Eng. (3)
Cosmo D. Strigaro, Mat'l. Mgmt. M/S (5)
Arnold B. Whitaker, Veh. Eng. M/S (5)
Joseph F. Heavey, Corp. Inst. Sys. (5)
Gregory Stilwagen, Inv. Cont. (6)
John L. Froland, Flt. Ops. Insp. (7)
John Zarodkiewicz, Tech. Req'mt. (25)
Perry L. Gardner, Cont. & Mech. (25)
Gerald R. Altmann, Reqt's. Plan. (30)
Bertil G. Lindgren, Career Ed. & Dev. (39)
Robert Gedney, Electro/Mech. Des. (40)
Raymond M. Bohanon, Invent. Mgt. (44)
George W. Yarrington, Composites (66)
George W. Brown, Boeing Final Assy. (77)
Otto A. Christen, Tool Eng. (77)
Terrence J. Newitt, Fld. Ops. Mgmt. & Staff (267)
Anthony R. Cicale, Eng. Dev. Mgmt. & Staff (563)

30

William J. Murphy Jr., Operations (1)
Sol Schneider, Prod. Eng. (2)
Joseph J. Beck Jr., Comp. & Adhesive (2)
Jasper E. Messina Jr., Mach. Bus. Office (3)

Next issue: March 9

ATTENTION: All Embry-Riddle graduates interested in meeting other Riddle graduates for lunch once a month, contact Dan Gambrell, Ext. 5807.

Peter F. Zaccardo, Veh. Lia. Eng. (3)
Joseph Russak, Adv. Plan. (5)
Bernard L. Brooks, Corp. Cont. (5)
Ingolf H. Henriksen, Mgmt. & Staff (5)
John A. Neyssen Jr., Flt. Avionics (7)
Frank P. Lagonigro, Conf. Data Mgmt. (9)
Bernard J. St. John, Lab Mgmt. & Tech. (14)
George E. Landin, Elect. Mech. Lines (25)
Kenneth R. Doe, Operations (25)
Vincent J. Tascarella, Corp. Proc. Ops. Mgmt./Staff (30)
Robert E. Watkins, V.P.-Corp. Material Ops. (30)
John A. MacKnight, Mass. Prop. Anal. & Cntl. (40)
Louis J. Lovisek, Veh. Des. Proj. Mgt. (40)
Regina A. McKenna, Funct. Proj. Admin. (40)
Aloysius J. Bischof, Qual. Cont'l. (77)
Robert D. Panza, Mech. Des. Staff (287)
Otto F. Mayer, Eng. Test Ops. Proj. Eng. (500)

25

William T. Dwyer, Upholstery (1)
George H. Hilton, Metallurgical Eng'r (1)
Peter G. Belies, Maint. & Test (1)
Dennis G. Hansen, Mass Prop. Anal. (1)
John A. Malenchek, Machine Shop (2)
Albert E. Witzig, Templates (2)
Gerardo L. Ottaiano, Jig Det. & Sub-Assy. (2)
Leo J. Rogers, Qual. Lab. (2)
Walter W. Blenner, Spotweld (3)
Alexander McAslan, Detail Parts Fab. (3)
Irwin Palmer, Indust'l. Eng. (3)
Stanley G. Spero, MOM/SP (3)
Robert V. Walsh, Mach. Insp. (3)
David S. Komives, Personnel Mgmt/Staff (5)
Walter F. Hilbert, Env. Cont'l. Des. (5)
Raymond J. Munz, Adv. Aircraft Sys. (5)
Peter J. Sanicola, Propulsion Sys. (5)
Vincent J. Crafa Jr., Propulsion Sys. (5)
Michael Proise, Sta. & Contl./Fly Qual. (5)
George A. Zetkov, Sta. & Contl./Fly Qual. (5)
Robert Botwin, Adv. Sys. Mgt./Staff (5)
Beatrice E. Winkler, Ops. Anal. (5)
Vahe Jordan, Ops. Anal. (5)
Vincent A. Padovano, Market & Adv. Tech. (5)
Richard P. Wellenberger, Inst. Test (6)
Charles J. Kanige, Administration (7)
Paul G. Schnabel, Corp. Instr. Flt. Data (7)
George A. Graefe, Avionics Dev. (7)
Joseph S. Stevenson, Plastic/Plaster Tool (11)
John W. Galaway Jr., Maint. & Facil. Equip. (12)
Axel R. Nordstrom, Maint. Rearrangement (12)
Herman J. Hessel, Maint. Rearrangement (12)
Edward J. Gray, ILS Tech. Writing (15)
Jerome B. Look, Inv. Plan & Anal. (17)
John W. Walsh, ILS Subsys. Engrg. (25)
Ronald E. Boyland, Prop. Staff (25)
Edward M. Finkelman, Sys. Design (25)
Arthur Schukal, Prog. Qual. Mgt. (25)
Peter Oram, Senior V.P. — Aircraft & Marine Prog. (25)
Martin L. Rossi, Nuclear & Astro. (26)
James B. Lemyre, Proc. Serv. (30)
Vincent Gonzalez, Proj. Mgt. (30)
Bernard D. Mulnard, Funct. & Proj. Admin. (35)
Frances T. Lyons, Eng. Admin. M/S (35)
Vincent S. Falcone, ILS Commodities Cont. (40)
Deane F. Flader, Pwr. Plt. Des. (40)
Joseph M. LeStrange, Sys. Des. Anal. (40)
Donald R. Sohl, Nav. Cont. Equip. Des. (40)
Francis E. Butler, Optic & Display Equip. Des. (40)
George F. Foray, Conf. Data Mgt. (40)
Joseph Gillman Jr., Camma. Corp. E.B.U. (77)
William M. Mang, Prod. Mgmt. Staff & Shop (77)
Raymond G. Makowski, Tech. Ops. (77)
Robert J. Shaw, Facilities (77)
Alan C. Stewart, Base Mgmt. (88)
Sam Piazzola, Paymaster (111)
Robert A. Stewart, Eng. Oper. (284)
Erick Stern, Prog. Eng. Manager M/S (289)
Joseph C. McArdle, Tech. Pers. Svc. (500)
Bernard C. Capone, Pwr. Plt. Des. (563)

Personals

My family and I would like to thank all our friends, co-workers and ESO for their prayers, expressions of sympathy and thoughtfulness during the recent loss of my wife. Arnold Vincent

My family and I wish to thank all our friends and co-workers for their kind and sincere expressions of sympathy during the recent loss of my father. George R. Hassel Jr.

My family and I wish to express our sincere thanks and appreciation to my friends, co-workers and ESO for their support, understanding and kind expressions of sympathy during the recent loss of my father. Valerie Pesce

Thank you for your kind expression of sympathy given my family and I on the loss of my mother Rose. Ted Agress

My family and I wish to thank all of our friends at Grumman for their kindness and support during the recent loss of our father Joseph. Dina Placenza

Talent search is on

Master's Fellowship deadline is March 1

Since 1968, over 150 Grumman men and women have obtained their master's degrees as Grumman Science and Engineering Master's Fellows. Fellowships are available for the academic year which begins this coming fall. Application deadline is Thursday, March 1.

The Grumman Fellowship Program's aim is to provide those who have special talent for technological inventiveness with the financial means to achieve a master's degree in fields related to aerospace technology. "In addition, Fellows have the opportunity to broaden their on-the-job experience with Grumman," says Sue Dalva, who administers the program.

To be eligible for the Fellowship competition, a Grummanite must have completed at least two years of employment with the company at the start of the Fellowship period; hold a bachelor's degree in a field of technology related to the aerospace industry; have demonstrated a capability for creative work at Grumman; and meet the entrance requirements for a matriculated technological program in graduate school.

A shortened work week

Once selected, each Fellow is required to work a minimum of 24 hours per week at Grumman during the regular school year and 40 hours per week during the summer.

"Each Fellow is expected to carry a course workload of one-half the full-time semester hours," says Dalva, "approximately nine credits per semester. With this workload, a Grumman Fellow should complete a master's degree within two years — or less."

When feasible, a Fellow can work under the Rotational Work Assignment Plan. With this plan, students can work in different fields of the company on a six-month basis, to broaden their technical horizons and gain a better understanding of corporate activities.

Benefits included

"Over the period of the Fellowship, participants are considered full-time employees, eligible for all company benefits," says Dalva. In addition, Fellows are paid for all hours worked, full tuition, books for courses taken, fees, and a yearly stipend of $1,800.

The stipend is granted to provide some financial compensation for time off for school.

Applications can be obtained from the Fellowship Program office in Plant 35, Ext. 4549. The application and a transcript of undergraduate grades must be forwarded to the Fellowship office no later than March 1.

The Fellowship Recommendation Committee will select the most outstanding applicants — those whose interests and capabilities are most compatible with the trend of Grumman's technological activities. Finalists will be invited for interviews by the committee on or about March 15. Those applicants not selected will receive a letter around the same date. The 1984 Grumman Fellows will be notified of their selection by March 31.

scorecard

Hoopsters in first

The Grumman varsity basketball team topped a much improved Sperry squad in the second meeting of the two teams by a score of 86-71. The victory over Sperry keeps the Grummanites in a tie for first place in the Long Island Industrial League with the powerful IBM team.

Against Sperry, guard Rick Cooke put in a total of 30 points to lead the team, while adding seven rebounds, seven steals and six assists. Teammate Columbus Poole totaled 20 points with nine assists. Mike Kennedy and Nate Kelly turned in fine defensive performances as the Grummanites' team quickness accounted for 21 steals in the game.

Quickness was not a factor, however, in a recent loss to Capital Stationary in the Glen Cove Open League. The Grummanite squad faced a team whose starting line-up averaged over six foot-five inches tall a man. The big height disadvantage resulted in the Grummanites' largest margin of loss to date as Capital Stationary beat the varsity 100 to 79. Columbus Poole turned in a team high 37 points in the losing effort.

The varsity squad also dropped another Glen Cove Open game to Federal Express. Playing their third game in four nights the team turned in a lackluster performance losing 94 to 79. The loss dropped them to a three wins and eight losses record in the Glen Cove Open League.

Perfect game. *Jerry Kelly overcame the 'quiet tension' of the last few frames to bowl a perfect 300 game in a recent meeting of the Tuesday Night Men's Masters League at Deer Park Bowl.*

Perfect game

"The tension didn't really come until near the end when everyone in the place stopped what they were doing to watch me — that quiet got a little scary," says Jerry Kelly after bowling his first sanctioned 300 game recently.

Jerry, an ILS technical writer and 21-year Grummanite, rolled his perfect game in the Tuesday night Men's Masters League at Deer Park Bowl on February 7.

"It was pretty exciting to bowl a perfect game," he says. "I've been bowling for about 24 years and they don't come all that often you know."

Jerry also rolled games of 268 and 217, "but, unfortunately, our team got blown away anyway," he adds.

Varsity hoopsters. *The Grumman varsity basketball team is flying high lately with an undefeated record in the Long Island Industrial League. Team members are: (L to R, standing) Ron Knight (coach), Mike Kennedy, Rick Cooke, co-captain Jim McKinstry, Columbus Poole, Ben Muniz, Tom Walker, Rus Goss (coach). (L to R, kneeling) Dave Follins, Rich Berscak, Fred Turner, Julius Longshore, (missing from picture) co-captain Rich Washington, Nate Kelly, Jake Jacobs, Ray Nirrengarten and Mel Robinson.*

Softball call

Softball stars take note. It's that time of year again. Dust off your spikes and oil your gloves because the Grumman varsity softball "Tomcats" are having team tryouts soon.

All positions on the varsity team are open to competition, according to team officials. The tryouts begin at 10:00 a.m. on Sunday, April 1 and will be held on consecutive Sundays thereafter until April 29. There will also be tryouts on Tuesdays and Thursdays, April 3, 5, 10, 12, 17, 19, 24, and 26, at 4 p.m. For further information call Tomcat manager Joe Cavalluzzo at ext. 3756 or Bill Diercks at ext. 7619.

Puck action

The Grumman varsity hockey team recently skated over a tough Mineola squad by a score of 12 to 4. The highscoring Grummanites were lead by defenseman John Look who broke a season long scoring slump with an early goal for the Tomcats.

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